Executive Overview

Federal Office Information Systems

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To Our Clients:

This summary is an excerpt from a full research report, Federal Office Information Systems issued as part of INPUT's Federal Information Systems and Services Program (FISSP). A complete description of the program is provided at the end of this Executive Overview.

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REPORT ABSTRACT

Through the early 1980s federal agencies were faced with the apparent antithetical requirements of processing more data and information with smaller staffs. One early answer to the need for greater productivity among knowledge workers was found in the use of personal workstations. The rapid expansion of the end user coupled with the need for access to major data bases and users' requirements for "virtual desks" that support a variety of office functions has led to new requirements for office information systems (OIS). These new systems are being designed to link individual workstations to other workstations, minicomputers, and even mainframe computers for the purpose of administrative management, C2, and logistics operations. So pervasive is the need that nearly every ADP-related procurement carries with it a requirement which, in its broadest application, could be considered a component of an office information system.

This report, based on interviews with agencies on the leading edge of federal office information systems and with vendors who supply OIS hardware and services to the federal government, qualifies and quantifies the federal OIS market. Agency strategies and specific procurement opportunities are identified and explained as are vendor product and marketing strategies and vendor successes to date.

OVERVIEW CONTENTS

A. CONFLICTING PRESSURES IMPACT FEDERAL OIS MARKET

- As the nation's largest office, the federal government is faced with conflicting pressures that are impacting vendor opportunities. The outcome is decidedly positive, but the pace of OIS expenditures varies by individual agency and even individual offices.

- On the positive side, the need for improved office information systems is creating new vendor opportunities.

  - The need for productivity increases among knowledge workers is clearly evident. Not only more, but better information resource management is being required.

  - An uncontrolled proliferation of office support tools in the form of word processors, microcomputers, and other large systems applications has created opportunities for integrated OIS solutions.

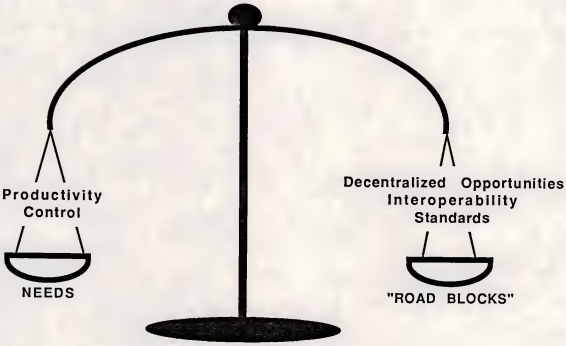
- However, there are hurdles to overcome.

  - While some agencies have established positions on an agency-wide basis, others have fostered decentralization of both planning and investing. These latter agencies require vendors to invest heavily in market intelligence to ensure that opportunities are not missed.

  - Agencies are reluctant to impose standards that would unduly restrict contracting competition, but do require vendors to offer with solutions that permit the interoperability of systems in a multivendor environment.

EXHIBIT II-1

CONFLICTING PRESSURES IMPACT FEDERAL OIS MARKET



B. FEDERAL OIS MARKET FORECAST

- INPUT estimates that the federal government office information systems market will increase from approximately $.8 billion in GFY 1986 to $1.3 billion by 1991, at an Average Annual Growth Rate (AAGR) of 10%. OIS is included in a variety of federal efforts that involve expenditures in excess of this forecast. This forecast includes only OIS-related expenditures while excluding that portion of planned initiatives that does not clearly satisfy the definitions of this report.

- Through the forecast period the expenditures will revolve around the hardware support tools required by office workers. As this base of hardware becomes established the emphasis will shift to professional services and the requirements will entail the establishment of integrated office information systems.

- Turnkey-type solutions will continue to grow at a rate based on the availability of integrated OIS and on the multifunctionality that such systems are now coming to have.

EXHIBIT II-2

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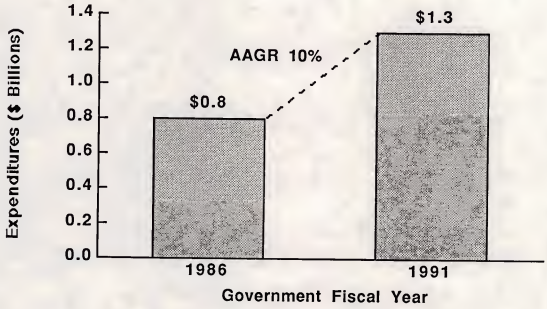
FEDERAL OIS MARKET FORECAST



C. EXTENT OF OIS SUPPORT VARIES BY LOCATION

- While the targets of OIS activity are agency and/or office specific in most cases, they may be generally defined both by the office function to be performed and the location of support for that function.

- By function, storage and retrieval applications, particularly on-line data bases, appear most frequently in initiatives. A secondary grouping of text/document processing, distribution, and analysis highlights the finding that four of the five defined functions represent frequent targets of initiatives.

- The location of support is a function of the centralization of agency initiatives and the natural or logical location of the activity. Information analysis and data/text processing are more solitary kinds of activities and are generally supported on an individual or work unit basis. The storage, retrieval, and distribution of data/information more frequently involve larger audiences and find their support in shared resources. Some agencies have been successful in institutionalizing these functions, providing central facilities and end-user connectivity.

- Most opportunities will target work units or agency-wide groups through the forecast period as agencies seek control over and leverage from both their information resources and computing assets.

EXHIBIT II-3

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EXTENT OF OIS SUPPORT VARIES BY LOCATION

Function	Location of Support			
	External	Standalone	Work Unit	Institution
Entry			High	
Storage/ Retrieval			Moderate	Moderate
Analysis		High	Moderate	
Processing		High	Moderate	
Distribution	Moderate			Moderate

D. THE "IDEAL" OIS STRUCTURE

- The Army's three-tier OIS structure typifies the goal many agencies have for organizing OIS. The structure's key attributes include:

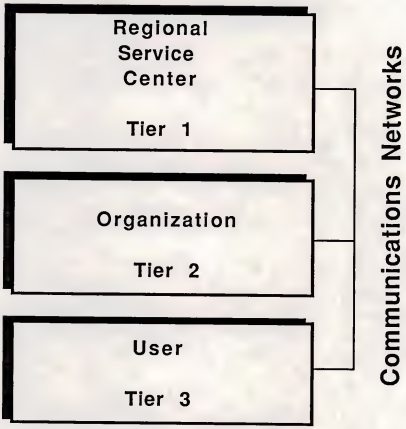
  - The duplication of certain capabilities (e.g., word processing) at each tier with varying degrees of function/capability depending on the specific needs at that tier.

  - The networking employed; that is, sub-LANs to connect individual users in Tier 3, LANs in Tier 2 to connect multiple groups of Tier 3 users, and wide area networks to connect multiple organizations at an agency level.

  - The capacity of the system(s) at each tier with respect to the number of users involved (Tier 3 has the most), processing speed (Tier 1), and storage (Tier 1).

EXHIBIT II-4

THE "IDEAL" OIS STRUCTURE



Source: The Army Information Architecture, DA PAM 25-1

E. STRATEGIC OIS ISSUES

- As agencies drive toward the ideal office information system, they face a host of issues that will impact future programs.

- While OIS development has been fairly autonomous within offices of each agency, management is now grappling with the viability of that autonomy. To allow offices to grow their OIS capabilities on an individual basis probably ensures a better "fit" in the short term, but perpetuates incompatibility in the long term. Centralized planning and implementation should eventually evolve as the norm.

- Related to this, some agencies have yet to decide what standards, if any, to follow and at what level in the organization each standard should be applied. Since agencies do not want to be in the business of telling vendors what technology they should follow and do not want to restrict competition, agencies have opted for "least common denominator" or "must be compatible with..." approaches.

  - Civil agencies will undoubtedly follow industry standards for connectivity and by default use open systems architecture and commercially available data/text interchange formats.

  - Defense agencies have developed their own interconnect standard and will employ DIF for document interchange.

- Rather than suffer the potential liabilities from insisting on system uniformity, agencies will require vendors to provide interoperable capabilities that permit file and document exchanges in a multivendor environment.

EXHIBIT II-5

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STRATEGIC OIS ISSUES

- Centralization
- Standardization
  - Connectivity
  - Data/Text Interchange
  - Interoperability

F. LEADING FEDERAL OIS VENDORS

- Based on 1985 federal OIS-related revenue, INPUT estimates that much of the current market is controlled by hardware-oriented vendors. There are some vendors in the top ten who are "hardware independent" and known primarily for their integration capabilities.

  - Although Wang had reverses in this market in 1985, their large installed base and attractive integrated office solutions helped them achieve the number one status. Data General, with several recent wins, seems to have included federal OIS in their corporate focus as well.

  - IBM's microcomputer and Digital's minicomputers helped to carry them to leading roles in this market.

  - The integrators, PRC and CSC, have also been recipients of large, OIS-related awards. CSC in particular seems to have developed a capability for integrating OIS via off-the-shelf products from multiple vendors.

  - AT&T's recent co-venture agreement with CSC for the development of AT&T's OIS offerings could move them into a key market role in the coming years.

- While not on INPUT's "Top 10" for 1985 OIS revenue, Zenith Data Systems, with recent large awards from Air Force, IRS, and HHS, is certain to be a contender in future years.

EXHIBIT II-6

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LEADING FEDERAL OIS VENDORS

Rank	Vendor
1	Wang
2	IBM
3	Digital
4	Data General
5	PRC
6	NBI
7	CSC
8	Xerox
9	SDC/Burroughs
10	AT&T

G. STRATEGIC DIRECTIONS OF OIS VENDORS

- Vendors have been actively developing their OIS offerings.

  - In some cases vendors are filling holes through in-house development or ventures with other companies. "Hole filling" strategies appear questionable, at least from the federal perspective, in that agencies seem less inclined to base awards on the completeness of the offering as on its integration.

  - Other vendors are integrating offerings in an attempt to produce a complete set of applications. But some vendors may have missed the mark. IBM's DISOSS architecture, for example, is unlikely to reward vendors who provide it; many agencies do not view it as a viable document interchange format.

- The more successful strategies appear on the marketing front.

  - Vendors who have presence in an agency are finding the argument of system uniformity a key benefit.

  - For different reasons, vendors with requirements contracts are realizing additional sales as other agencies piggyback on existing contracts.

  - Vendors are also winning with discounts. Software vendors in general and microcomputer software suppliers specifically are more frequently pricing on a commodity basis, lowering single copy prices in exchange for volume orders.

EXHIBIT II-7

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STRATEGIC DIRECTIONS OF OIS VENDORS

- Product Line Extensions
- Product Integration
- Marketing Initiatives

H. RECOMMENDATIONS

- Vendor seeking to grow their federal OIS business must be responsive to both the short- and long-term directions of both the immediate buyer and the large organization of which the buyer is a part. This involves a great deal of market intelligence on such issues as centralization of OIS strategies and current and future standards as they are envisioned at different levels of the organization. Vendors who propose solutions to the specific opportunity without assessing the "fit" on the overall strategy are quite likely to be at a disadvantage.

- The solutions that vendors propose must also have a "natural" approach to interoperability both in terms of communications and data/text interchange. It will not be sufficient to bid system uniformity or patchwork protocols in the agency's multivendor environment.

- Related to interoperability, successful vendors will more likely offer approaches that not only solve the current problem but afford flexible approaches to the future OIS needs of the agency. Since for many vendors this could mean "giving away the store," vendors would be well advised to consider whether future business is to come from product or capability "lock-ins."

EXHIBIT II-8

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RECOMMENDATIONS

- Understand the Buyer's Strategic Directions
- Propose Multi-Vendor Interoperability
- Bid "Open-Ended" Solutions

FEDERAL OFFICE INFORMATION SYSTEMS

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EXHIBITS

FEDERAL INFORMATION SYSTEMS AND SERVICES PROGRAM (FISSP)

Informed Vendors Tap Federal Market Opportunities

The federal government spends billions of dollars every year on the procurement of externally provided information systems and services. And most of those dollars to go the vendors who best understand the federal marketplace - its plans, policies, and regulations - the informed vendors who seek and find the real opportunities.

FISSP -- The Information You Need

INPUT's Federal Information Systems and Services Program (FISSP) accurately informs you of major federal procurements and provides a strategic perspective of federal information technology programs to help you win federal business. With the FISSP reports and personalized guidance from INPUT's experienced Washington consultants you will:

- Enhance marketing support.
- Get a head start on the competition.
- Identify qualified prospects.
- Reduce marketing costs.
- Improve return on bidding investment.
- Focus business development efforts.

All this adds up to **more effective marketing** and a **bigger share** of the federal information technology market for you and your company.

...Enhance Marketing Support

The FISSP products and services support every aspect of your federal marketing program.

- ***Procurement Analysis Reports (PAR)*** identify and track individual opportunities.
- ***Market Analysis Reports*** dissect and forecast long-range trends in specific market segments and federal agencies.
- ***Federal Flash*** bulletins analyze recent legislative, regulatory, and policy actions.
- ***Client Query Service*** provides timely answers to your questions about programs, competitors, and contracts.
- ***Access to INPUT's Federal Information Center,*** housing hundreds of agency planning and procurement documents, saves you valuable in-house project research time and money.
- ***Annual FISSP Client Conference*** provides a unique forum for discussing federal issues with agency officials and INPUT market experts.

...Get a Head Start on the Competition

INPUT's PAR and Market Analysis Reports form the foundation of FISSP. Together these comprehensive reports deliver tactical and strategic market intelligence to help your company win federal business.

...Identify Qualified Prospects

Before you can win federal contracts, you need to determine the "real" opportunities. And waiting for release of the Request for Proposal (RFP) doesn't leave you much time to develop marketing strategy.

The PAR **identifies opportunities** up to **five years in advance** of RFP release! Starting from agency planning documents, INPUT investigates individual initiatives, determines exactly what the agencies intend to buy, and verifies funding. The PAR is **indexed by agency, fiscal year,** and **system/service mode,** so you can select the most appropriate opportunities for your company.

...Reduce Marketing Costs

Screening out programs that are not funded or don't fit your company's strategy reduces the number of false leads your marketing staff pursues -- saving you valuable sales time. The PAR allows you to focus sales efforts on federal opportunities that prove to be most profitable for your firm.

To help you further control the cost of sales, PAR **identifies points of contact** for pre-sale marketing. Instead of following a winding trail through the bureaucracy, with PAR your marketing staff spends its time talking to the federal officials who really count.

...Improve Return on Bidding Investment

With some federal programs, identifying the program and points of contact isn't quite enough to give you a competitive advantage.

To help you better understand each program and improve your competitive position, the PAR describes specific **mission requirements, related programs,** and **prior contract awards,** including **incumbent contractors** and **contract numbers** where applicable. Based on interviews with agency officials, the PAR analyses provide additional **"inside" information** on program acquisition strategy and preferences to improve your chances of winning.

...Focus Business Development Efforts

Success in the federal market depends on finding and winning the current procurements. But to ensure continued success, you need to position your company to meet future agency needs.

As a complement to the PAR, the Market Analysis Reports expand your perspective of federal agencies and market segments with detailed **budget forecasts,** contracting **trend analyses, technology impact assessments,** and **competitive environment evaluations.** Recent FISSP market analyses include Professional Services, Treasury Department, Systems Integration, and Telecommunications.

Get The Most Out Of Federal Marketing

From rapid query response to long-range market analyses, INPUT's FISSP delivers the most program-specific federal market intelligence you can buy -- and at less than the cost of employing one researcher. With INPUT's experience and position as an independent market consultant, you get access to agency information that isn't generally available to potential contractors.

Why not cash-in on federal market opportunites and add INPUT to your federal marketing program? Call your nearest INPUT office today.

For more information, contact your nearest INPUT office listed on the next page.

About INPUT

INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions. Continuing services are provided to users and vendors of computers, communications, and office products and services.

The company carries out continuous and in-depth research. Working closely with clients on important issues, INPUT's staff members analyze and interpret the research data, then develop recommendations and innovative ideas to meet clients' needs.

Clients receive reports, presentations, access to data on which analyses are based, and continuous consulting.

Many of INPUT's professional staff members have nearly 20 years' experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

Formed in 1974, INPUT has become a leading international planning services firm. Clients include over 100 of the world's largest and most technically advanced companies.

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